

of which Parker<sup>1</sup> remarks: "There is an oval fontanelle (such as is common in Lizards) in the præsternum and a large part of the mesosternum, and the hinder part of the præsternum is occupied by the primordial fissure."

This inquiry has been carried out in the Biological Laboratory of the Royal College of Science, South Kensington, at the suggestion of my teacher, Prof. G. B. Howes; and to him my sincere thanks are due for his help and supervision.

The features noted apply equally to both the Rabbit (*Lepus cuniculus*) and Hare (*Lepus timidus*): no differences of fundamental importance being recognizable between them.

### 3. On the Muscicapine Genus *Chasiempis*, with a Description of a new Species. By SCOTT B. WILSON, F.Z.S.

[Received January 31, 1891.]

I propose in the present paper to state briefly the distinctions between the various species of this interesting genus of Flycatchers which are to be found inhabiting the various islands of the Hawaiian group, and this object will, I think, be greatly furthered by a key. In drawing this up, I have to some extent followed that given by my friend Dr. Stejneger (Proc. U. S. Nat. Mus. 1887, p. 87), and I should also mention here that, quite recently, I sent him a series of the different species in my collection, with the idea of ascertaining his opinion on some difficult points. Dr. Stejneger kindly answered me very fully, and I am glad to say that our views are nearly, if not quite, in accord on the subject.

Graf Hans von Berlepsch was kind enough to send me a short time since a paper of his on *Chasiempis*, containing a good coloured figure of one species. I do not agree with the conclusions at which he arrives, and think that they are partly due to the insufficient material he had to work upon; for, though the collection upon which he based his observations is rich enough as regards the number of specimens, but *one* island—Oahu—seems to be represented in it. I shall comment at length on this paper in the Part of my 'Birds of the Sandwich Islands' which deals with *Chasiempis*, merely stating here that Graf von Berlepsch unites *Chasiempis ridgwayi*, *Ch. ibidis*, *Ch. sclateri*, and *Ch. gayi* under the head of *Chasiempis sandwichensis*, and is of opinion that his series of skins bears this out. As will be seen further on, my views are very different from his, but are more probably correct, as I have had specimens from the different islands for comparison, while he had to rely in a great measure on figures and descriptions.

Another article which must be referred to is that by Dr. Sclater, "On the Muscicapine Genus *Chasiempis*" (Ibis, 1885, p. 17), a

<sup>1</sup> W. K. Parker, Ray Society's Monograph on the Shoulder-girdle and Sternum in Vertebrates, p. 217. Cf. also Flower, 'Osteology of Mammalia,' pp. 99, 100, figs. 37, 39.

paper by which the investigation of this difficult genus has been greatly promoted. Dr. Sclater gives two coloured figures, fig. 1 being taken from one of the two specimens obtained by the 'Challenger' Expedition at Hilo, Hawaii, in August 1875; while fig. 2 is from a skin obtained by Dr. Sclater from Verreaux of Paris, and presented to the British Museum. These two specimens he figures under the name of *Chasiempis sandwichensis*, taking them to be the male and female of the same species. He also considers *Chasiempis sclateri* of Ridgway to be identical with fig. 2.

However, as the material I have had to work upon, though of large extent, is in some ways incomplete, I do not feel justified in giving my conclusions as final; nor does Dr. Stejneger, as the following extract from his letter to me will show. He says, "I consider that my conclusions are only provisional; and also that they are the only ones that can be properly drawn up from the material at my disposition now; . . . additional material might alter my views considerably."

On one point, however, Dr. Stejneger and I are quite decided—the status of one of the species inhabiting Oahu. This is distinct beyond any doubt; and, being so, I have named it after my friend Mr. Francis Gay, of Makaweli, a gentleman whose knowledge of the Avifauna of his native islands is very considerable and to whose assistance I owe much of my success whilst exploring the island of Kauai.

I will now give a short description of the chief distinctive characters of *Chasiempis gayi*.

#### CHASIEMPIS GAYI.

Breast brown, streaked with black; tail-feathers with white markings occupying only half the extent they do in *Ch. ridgwayi*, though graduated in size from the outer feathers in the same manner; bill bluish black, broader at the base and stouter generally than in any other species of the genus.

*Hab.* Oahu.

#### *Provisional Key to the genus Chasiempis.*

- a*<sup>1</sup>. Wing-markings pure white. Bill bluish black.  
*b*<sup>1</sup>. Upper parts of the body deep smoky grey ..... *Ch. dolei*, Stejn.  
*b*<sup>2</sup>. Upper parts of the body brown; forehead, crown of the head, and breast bright chestnut. [*Ibis*, 1885, pl. i. fig. 1.]  
*b*<sup>3</sup>. Breast brown, streaked with black; white markings on the tail-feathers occupying only about half the extent they do in *Ch. ridgwayi*; bill stouter and broader at the base than in any other species ..... *Ch. gayi*, sp. nov.  
*a*<sup>2</sup>. Wing-markings tawny, or "ferruginous white."  
 Bill horn-colour, yellow towards the base of the mandible.  
*c*<sup>1</sup>. Breast light tawny with no trace of black; upper parts of the body bright tawny, as also are the sides of the head and ear-coverts;

- rump, flanks, and under tail-coverts bright tawny..... *Ch. sclateri*, Ridgw.
- c<sup>2</sup>. Breast, rump, and flanks lighter tawny than in the preceding species; under tail-coverts white, very slightly tinged with tawny. Dimensions smaller than the preceding species..... *Ch. ibidis*, Stejn.  
[*Ibis*, 1885, pl. i. fig. 2.]

It thus follows that there are, so far as is at present known, five species of *Chasiempis* inhabiting the Sandwich Islands:—

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|-------------------------------------|----------|
| 1. <i>Ch. dolei</i> , Stejneger.    | } Kauai. |
| 2. <i>Ch. sclateri</i> , Ridgway.   |          |
| 3. <i>Ch. gayi</i> , Wilson.        | } Oahu.  |
| 4. <i>Ch. ibidis</i> , Stejneger.   |          |
| 5. <i>Ch. ridgwayi</i> , Stejneger. | Hawaii.  |

Dr. Stejneger inclines to the belief that there still remains a sixth species, a form with tawny wing-markings, the Sandwich Flycatcher of Latham (*Ch. sandwichensis* of Gmelin), the real habitat of which may be one of the islands between Hawaii and Kauai. His reason for this theory is that Latham's description of the Sandwich Flycatcher, *Ch. sandwichensis*, which is plainly that of a species with tawny wing-markings, does not agree in detail with that of either *Ch. sclateri* or *Ch. ibidis*. In his letter to me he further says "that you did not find it there (on Hawaii) may be due either to it having become exterminated, or to a particular misfortune of yours in not coming across it during your stay on that island."

I have in my collection four specimens from Hawaii with tawny wing-markings, but these I take to be immature examples of *Ch. ridgwayi*. Dr. Stejneger, however, may be right, but this is a question I hope will be satisfactorily solved by the time the part of my 'Birds of the Sandwich Islands' including this genus appears.

#### 4. Description of a new Species of the Genus *Himatione* from the Sandwich Islands. By SCOTT B. WILSON, F.Z.S.

[Received January 31, 1891.]

I herewith give a brief description of a new species of *Himatione*, based on a single specimen which I obtained in the district of Kula on the island of Maui, in July 1888. I may mention that I killed it and an immature example of *Himatione sanguinea* at one shot. I have named it after my friend Mr. Dole, whose name is so well known amongst those ornithologists that have studied the Hawaiian Avifauna.

##### HIMATIONE DOLEI, sp. nov.

Crown of the head grey, shading into dull brown-pink, which is tinged on the sides with dull red; rest of the upper parts dusky brown